



March 26, 2018

Rush D. Holt

Chief Executive Officer, AAAS and
Executive Publisher, *Science Family of Journals*

The Honorable Rod Rosenstein
Deputy Attorney General
Department of Justice
950 Pennsylvania Ave., NW
Washington, DC 20530

Dear Mr. Rosenstein:

I enjoyed speaking on a panel with you at the American Academy of Forensic Sciences Annual Meeting and learning of your ambitious plans for the Department of Justice. I particularly welcome your commitment to the reliable use of forensic science. As you know, AAAS has produced reports on two forensic disciplines, fire investigation and latent fingerprint examination. For each report, identifying gaps in our knowledge led to recommendations that constitute a research agenda that we hope will be useful to research scientists and funding agencies.

Given AAAS' study of latent fingerprints, I have a particular interest in your development of Uniform Language for Testimony and Reports. I commend you for grappling with this important issue. Your recommended language does not allow examiners to claim that "two friction ridge prints originated from the same source to the absolute exclusion of all" others, to state or imply a level of certainty that is absolute or numerically calculated, or to state that the method used in fingerprint examination has a zero error rate. We agree that these statements should not be allowed in testimony or reports.

There is an aspect of your Uniform Language, however, that is not in agreement with the scientific conclusions of the AAAS report. Although the Uniform Language you put forward forbids an examiner from making the unsupportable claim that the pattern of features in two prints come from the same source to the exclusion of all others, it does allow examiners to say they "would not *expect* to see that same arrangement of features repeated in an impression that came from a different source."

There is no scientific basis for estimating the number of individuals who might have a particular pattern of features; therefore, there is no scientific basis on which an examiner might form an *expectation* of whether an arrangement comes from the same source. The proposed language fails to acknowledge the uncertainty that exists regarding the rarity of particular fingerprint patterns. Any such expectations that an examiner asserts necessarily rest on speculation, rather than scientific evidence.

As there is no empirical basis for examiners to estimate the frequency of any particular pattern observable in a print, the term identification or, in your proposed language *source identification*, should not be used.

The AAAS report, “[Forensic Science Assessments – A Quality and Gap Analysis: Latent Fingerprint Examination](#),” offers the following example of language that avoids the pitfalls described above:

The latent print on Exhibit ## and the record print bearing the name XXX have a great deal of corresponding ridge detail with no differences that would indicate they were made by different fingers. There is no way to determine how many other people might have a finger with a corresponding set of ridge features, but it is my opinion that this set of features would be unusual.

This example and other similar language will be easier to defend from a scientific stance than the claim or implication that examiners can identify a known print as the sole source of a latent print based on unscientific expectations.

Given your dedication to an empirical basis for forensic science, we ask that you consider adopting the AAAS language for federal examiners to use in their oral and written testimony.

We believe the courts and the public expect a good empirical basis for forensic science and presentation of forensic technologies and evidence that is consistent with that empirical basis.

We will present publicly the arguments made in this letter.

Sincerely,



Rush D. Holt